

REMARKS/ARGUMENTS

Applicants thank Examiner Shosho for indicating on page 2, paragraph No. 1, of the Office Action of December 14, 2006 that the Amendment filed in the present application on September 18, 2006 has overcome the rejections of the Office Action of May 18, 2006.

Applicants further thank the Examiner for indicating that the subject matter of Claims 11 and 18-20 is allowable if rewritten in independent form.

Applicants submit the amendment to the claims obviates the rejections and/or objections under 35 U.S.C. § 112.

The Office rejected Claim 1 as obvious over Ohta (U.S. Patent No. 4,597,794) in view of Inoue (U.S. Patent No. 6,412,940). The Office conceded that Ohta does not disclose a process in which kneading occurs in two steps, e.g., by kneading with a kneader followed by kneading with a roll-mill (see paragraph no. 9 on page 5 of the Office Action). The Office was nonetheless of the opinion that the claimed process would be obvious in view of the combination of Ohta and Inoue because Inoue discloses that different mixing devices may be used in combination.

However, the Office did not provide any reason why it would be obvious to carry out the process as claimed; namely, kneading with a kneader before kneading with a roll-mill. At best, Inoue discloses that kneading machines such as kneaders, double roll-mills, triple roll-mills, sand mills, etc. are equivalent. Inoue does not disclose that any advantage or desirable effect may be obtained by carrying out kneading with a combination of different kneaders. Inoue further does not disclose that any particular advantage may be obtained by first carrying out kneading with a kneader then carrying out kneading with a roll-mill, as presently claimed.

Applicants have disclosed that carrying out the kneading in two steps in a certain sequence, e.g., wherein kneading with a kneader proceeds kneading with a roll-mill, provides

a composition of improved grain quality such as finer grain. Applicants were thereby able to prepare a pigment dispersion having smaller average particle diameter.

As stated above, Inoue treats all mixing devices as equivalents. For example, Inoue characterizes the prior art kneading machines as follows:

Any type of commercial machine may be used for dispersing the pigment, e.g., colloid mill, flow jet mill, slasher mill, high-speed disperser, ball mill, attritor, sandmill, sand grinder, ultra fine mill, Eiger motor mill, dyno mill, pearl mill, agitator mill, Cobol mill, 3-roll mill, 2-roll mill, extruder, kneader, microfluidizer, laboratory homogenizer, and ultrasonic homogenizer. These machines may be used either individually or in combination. The pigment may be dispersed in a mixture of a given solvent, water and pigment dispersant by an adequate disperser. Dispersion method which uses no dispersing medium is preferable, viewed from prevention of contamination with an inorganic impurity, for which suitable dispersers include microfluidizer and ultrasonic homogenizer.

See, col. 11, lines 33-46 of Inoue.

According to Inoue, any type of the above-mentioned kneaders may be used in the prior art process. Inoue suggests that using two kneaders in sequence is acceptable.

Applicants on the other hand have recognized that a particular advantage, e.g., a finer grain composition, can be obtained when kneading is first carried out with a kneader then carried out with a roll-mill.

Applicants submit that the combination of Ohta and Inoue does not disclose or suggest that improved grain quality may be obtained by the process of the present claims. Applicants thus request the Office withdraw the rejection and allow all now-pending claims.

Application No. 10/813,274
Reply to Office Action of May 18, 2006

Respectfully submitted,

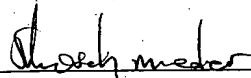
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